

# TRANSMISSION POWER CONTROL METHOD AND SYSTEM FOR CDMA COMMUNICATION SYSTEM

## ABSTRACT

5 A transmission power control method for a CDMA communication system  
which performs communication between a basestation and a plurality of mobile stations;  
comprising the steps of: transmitting uplink power from the plurality of the mobile  
stations to the basestation; measuring and receiving the uplink power transmitted from  
each of the plurality of mobile stations with different signal-to-interference (SIR)  
requirement thresholds at the basestation; taking a algorithm to converge the transmitted  
0 uplink power from each of the plurality of mobile stations; and calculating the uplink  
power transmitted from each of the plurality of mobile stations by a power convergence  
factor. The transmission power control method only needs the local measurements at  
the basestation and can meet different SIR requirements of mobile stations based on fair  
principle. Additionally, the transmission power control method of the present invention  
5 can not only converge fast, but also keep the transmitted power in a reasonable range.